REMARKS

Amendments to Specification and Abstract

The specification and abstract have been amended to provide subject matter headings in the specification and to revise the abstract so that it is consistent with formal requirements.

Amendments to Claims

The claims have been amended to clarify the original language and to bring the claims more into line with U.S. practice and claim language.

Support for the amendments to claim 1 is found throughout the specification and drawings of this application and in particular paragraph [0024] of the written description.

Claim 6 has been amended to properly refer back only to claims 2 to 4.

Claim Rejections – 35 USC §102

Applicant respectfully disagrees that claims 1-10 as originally presented and as currently amended are anticipated by Nakai (U.S. 6,094,281).

Original claim 1 recites a semiconductor array arrangement for scanning banknotes wherein the array comprises at least two parallel spaced linear semiconductor arrays each being formed by at least three layers which are maximally sensitive to light of different wavelengths, and further wherein the second array has a sensitivity spectrum range different from the first array, and still further wherein the filter is provided for the second semiconductor array which passes only a part of the spectrum.

Amendments to claim 1 have been introduced to more clearly recite the intended meaning of the original claim language, such that the amended claim positively recites that each linear semiconductor array comprises at least three successive layers which are maximally sensitive to a light of different wavelengths (see paragraph [0024] of the written description).

The advantage of using the pair of the layered semiconductors that are sensitive to light of different wavelengths is fully explained in the written description. More particularly, the arrangement of two arrays each comprising three successive layers sensitive to light of different wavelengths enables use of conventional stacked layers of light sensitive semiconductors in a very compact form. Moreover, this arrangement enables the use of a

first layered array while viewing visible light and the use of an identical or similar layered array for viewing an invisible part of the spectrum.

Thus, a separate special sensor element for invisible light versus visible light is not required and both arrays may be arranged in close proximity to each other without accounting for the difference in focus length of visible versus invisible portions of the light spectrum.

Accordingly, a compact, low cost sensor arrangement is obtained using conventional elements in a new and novel arrangement that facilitates precise and accurate scanning of banknotes.

The use of two arrays that are identical or similar enables the arrays to be used interchangeably for viewing visible and invisible portions of the light spectrum simply by processing the signals obtained from each array in an appropriate manner, such as described on pages 3 and 4 of the written description.

With regard to the use of the stacked semiconductor arrays for light in the invisible range, the use of the stacked array enables one to sum the signals from the three layers which provides a more accurate reading of the invisible light without regard to focus problems associated with light, for example, in the IR arrange (see paragraph [0019] and [0029]).

The use of two semiconductor arrays comprising layers that are successively sensitive to light of different wavelengths enables the arrays to be closely located next to each other, and permits viewing of the banknotes via the arrays without parallactic errors, as described in paragraph [0031] of the written description.

In summary, the present invention, while remarkably simple, is nevertheless novel and unobvious to the extent that it uses at least two simple semiconductor arrays that each comprise three successive layers sensitive to light of different wavelengths which enables them to be located in close proximity to each other and to interchangeably view light in the visible and invisible spectrums through the use of filters and appropriate signal processing. Moreover, the use of the three layered sensor enables viewing of light in the infrared spectrum without concern about the focal length of the light due to the use of the three layers which can produce a summation signal capturing the transmitted light in an efficient manner.

Nakai discloses sensor arrays that are located at different focal lengths that are critical (see figure 6 and related description in column 8, lines 55-62). Moreover, the arrays used for the visible light spectrum are constructed differently from the arrays constructed to view light in the invisible spectrum.

Clearly, Nakai fails to disclose the use of at least two linear semiconductor arrays each comprising at least three successive layers sensitive to light of different wavelengths, wherein one of the arrays scans the banknotes in a sensitivity spectrum range different from the other array and wherein at least the second array has a filter that passes only a part of the spectrum.

Accordingly, Nakai fails to establish that the claims of this application are unpatentable under 35 USC §102(b).

It is also submitted that Nakai fails to establish a *prima facie* case of obviousness with regard to the subject matter claimed in this application, since a person of ordinary skill in the art viewing the teachings of Nakai would be led to conclude that a completely different approach should be taken with regard to scanning a document using different sensor arrays for visible and invisible light, specifically arrays that are located at different focal lengths relative to a document being scanned to take into account the different focal length of visible versus invisible light.

Such a teaching would be entirely contrary to the objective of the claimed subject matter in this application, which specifically desires to reduce the complexity of the scanning array system by utilizing two semiconductor arrays each comprising at least three successive layers sensitive to light of different wavelengths, thereby enabling a compact and low cost arrangement of scanning arrays, as discussed previously.

The person of skill in the art viewing Nakai would not recognize that the use of two arrays comprising three successive layers could be used for viewing both visible and invisible light based on using a summation of the signals generated by the three layers that enables precise detection of the invisible light without the need for the solution proposed in Nakai, namely larger separate and different IR sensors 101 in combination with a difference in distance between the visible light and invisible light arrays 100 and 101 (see figures 5A and 6) of Nakai.

It is respectfully submitted that claim 1 and claims 2-10 that all depend directly or indirectly from claim 1 are fully patentable over Nakai and withdrawal of the rejection of the claims is appropriate.

With regard to claims 2-10, it is submitted that these claims are at least patentable based on their dependence on claim 1, which clearly is patentably distinguishable over Nakai, and further in view of their recitation of additional features lending additional patent weight to each of the dependent claims.

It is respectfully submitted that this application is now fully entitled to a favorable action and notice of allowance and the same is respectfully requested.

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